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EXAMINER

RYMAN, DANIEL J

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/927,708

Applicant(s)

EATOUGH ET AL.

Examiner

Daniel J. Ryman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/23/02; 11/8/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-14 and 21-30 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed 11/8/2005 have been fully considered but they are not persuasive regarding claims 15-20. On page 16 of the Response, regarding claim 15, Applicant asserts that Harvey does not expressly disclose establishing a domain from a first and second subnet, even though Applicant recognizes that Harvey discloses a "multicast area." Examiner, respectfully, disagrees with Applicant's assertion. Newton's Telecom Dictionary defines "domain" as "a sphere of influence or activity." Since Harvey's "multicast area" is "a sphere of influence or activity" given that all nodes within the "multicast area" receive packets in common, Examiner maintains that the "multicast area" is a domain. Harvey further discloses that the "multicast area" comprises multiple subnets (Fig. 1 and col. 3, lines 9-44). As such, Examiner asserts that Harvey discloses establishing a domain from a first and second subnet.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: ref. 900, (see paragraph 37). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

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Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 6 is objected to because of the following informalities: in line 4 “the subnet representative” should be “a subnet representative”. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-10 and 21-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Doeringer et al. (USPN 5,361,256).

7. Regarding claim 1, Doeringer discloses a method comprising: discovering a set of subnets (subnets involve with a groupid), the set of subnets having visibility of a transmission (col. 7, lines 34-59) where the set of subnets that receive transmissions destined for the groupid are discovered through the transmission of update PDUs; selecting a network element (gateway) to perform the transmission, the network element being in one of the set of subnets (col. 2, line 63-col. 3, line 7; col. 7, lines 5-16; and col. 7, lines 23-61) where a gateway attached to the source is “selected” to complete the transmission; sending a transmission job identifier (groupid) to the network element, wherein the transmission to be performed by the network element will include said identifier and the address of said one of the set of subnets (col. 7, lines 34-61 and

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col. 10, line 25-col. 11, line 1) where the exchange of update PDUs informs the network element of the groupid; and receiving an indication (update PDU) from the network element that it is aware of an alias domain representative being in another one of the set of subnets (col. 7, lines 1-16 and col. 7, lines 48-61) where an “alias domain representative” is defined as any gateway on a path to a subnet in the groupid since these gateways “represent” the domain by determining to which nodes to send a transmission and where the update PDUs are transmitted these “alias domain representatives.”

8. Regarding claim 2, Doeringer discloses establishing the discovered set of subnets as an alias domain (groupid) wherein each one of the set of subnets is assigned the same subnet address (groupid) (col. 7, lines 34-47).

9. Regarding claim 3, Doeringer discloses that the transmission is a multicast transmission (col. 5, lines 55-64 and col. 9, lines 10-15).

10. Regarding claim 4, Doeringer discloses that the selecting the network element comprises determining the network element to have a set of data to be transmitted for the transmission (col. 10, lines 25-26).

11. Regarding claim 5, Doeringer discloses maintaining a state of the transmission (reachability information) for each member of each of the set of subnets (col. 7, lines 5-16 and col. 8, lines 1-7).

12. Regarding claim 6, Doeringer discloses a method comprising: establishing a set of subnets as an alias domain (groupid) wherein each one of the set of subnets is assigned the same subnet address (groupid) by automatically (a) sending a discovery message (update PDU) to the subnet representative (gateway) of each one of the set of subnets (col. 7, lines 23-61) where an

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update PDU sent by one gateway and received by another gateway is, as broadly defined, a discovery message sent to the another gateway, (b) evaluating a response (update PDU) from the subnet representative (col. 7, lines 23-61) where the gateways exchange update PDUs in order to form a routing table, (c) where the response indicates that the sender's subnet has an alias (groupid), then assigning the sender's subnet to a domain indicated by the response (col. 7, lines 23-61) where gateways associate a groupid with a particular set of subnets, and (d) where the response indicates that the sender's subnet has no alias, then storing the sender's subnet address as a domain (col. 7, lines 23-61) where if there is no groupid then the system will view the subnet as an independent domain since it will send packets destined to that domain to the gateway responsible for the subnet; selecting a network element (gateway) in the alias domain to transmit a set of data to the domain (col. 7, lines 23-61) where the gateway connected to the source is "selected" to transmit the set of data to the domain; and maintaining a status of transmission of said set of data, wherein the status was received from the network element (col. 7, lines 23-61) where each gateway determines if the data needs to be further transmitted, and, if so, it transmits the data.

13. Regarding claim 7, Doeringer discloses that the selecting the network element comprises: ordering a set of network addresses; and selecting one of the set of network addresses, the one corresponding to the network element (col. 7, lines 34-47) where the source "orders a set of network addresses" by determining to which gateway to send the transmission out of all of the devices reachable by the source.

14. Regarding claim 8, Doeringer discloses that the alias domain is a multicast domain, the method further comprising selecting a representative for the alias domain and delegating a

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multicast job to the domain representative (col. 5, lines 55-64 and col. 9, lines 10-15) where a “domain representative” is defined to be any gateway since the gateways “represent” the domain by determining to which nodes to send a transmission.

15. Regarding claim 9, Doeringer discloses that the selecting the network element comprises determining the network element to have the set of data to be transmitted for the transmission (col. 10, line 25-col. 11, line 1) where only network elements that are on the path of transmission and thus receive the packet, i.e. “have the set of data to be transmitted,” are selected for participation in multicast distribution such that the network element initiating the multicast must “have the set of data.”

16. Regarding claim 10, Doeringer discloses determining the status of transmission for at least one target in the domain to be incomplete (col. 10, line 25-col. 11, line 1) where a transmission destined for multiple targets in different subnetworks lying on different paths will be transmitted to different network elements; and selecting a second network element (gateway on the path to a different intended subnet) to complete transmitting to the at least one target, the second network element having the set of data locally (col. 10, line 25-col. 11, line 1) where it is implicit that the network element must have the data stored locally (such as in a local buffer) since it transmits the data to the destination.

17. Regarding claim 21, Doeringer discloses a machine-readable medium that provides instructions, which when executed by a set of processors, cause said set of processors to perform operations comprising: determining a set of subnets to receive a set of data (subnets that are part of a multicast associated with a groupid), wherein the set of subnets have visibility of a multicast transmission (col. 7, lines 23-61); dynamically establishing the set of subnets as an alias domain

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(groupid) by sending to a representative (gateway) in each of the subnets a message (update PDU) that includes a multicast job identifier (groupid) and receiving a response (update PDU) that indicates whether or not the identifier has been previously received by the representative (col. 7, lines 23-61) where an update PDU includes the groupids reachable by the gateway such that an update PDU that does not include a groupid indicates that the gateway has not previously received a message indicating that a node is reachable through that gateway; selecting a representative for the domain (col. 2, line 63-col. 3, line 7 and col. 7, lines 23-61) where “selecting a representative” is interpreted to mean “selecting at least one representative” since this limitation does not preclude multiple domain representatives and where a “domain representative” is defined to be a gateway since the gateways “represent” the domain by determining to which nodes to send a transmission; and indicating to the selected representative to transmit the set of data (col. 10, line 25-col. 11, line 1) where a selected domain representative will transmit the set of data when it receives the set of data (“indication to transmit the set of data”) from a node on the path.

18. Regarding claim 22, Doeringer discloses that the selecting the representative comprises: ordering a set of network addresses and selecting one of the set of network addresses, the one corresponding to the representative (col. 2, line 64-col. 3, line 7 and col. 7, lines 17-19) where the nodes select the “best” path through the multiple gateways, such that the gateways that are part of the transmission of a groupid message are “selected” from an “ordered” set of network addresses (i.e. the other possible gateways for a path).

19. Regarding claim 23, Doeringer discloses that the selecting the representative comprises: indicating a preference value for at least one network element in each of the set of subnets; and

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determining the representative to have the preference value most desired in the set of subnets (col. 2, line 64-col. 3, line 7 and col. 7, lines 17-19) where only the subnet representatives that are on the shortest path or have the best quality of service are selected as domain representatives.

20. Regarding claim 24, Doeringer discloses that the selecting the representative comprises determining the representative to have the set of data to be transmitted (col. 10, line 25-col. 11, line 1) where only network elements that are on the path of transmission and thus receive the packet, i.e. "have the set of data to be transmitted," are selected for participation in multicast distribution such that the network element initiating the multicast must "have the set of data."

21. Regarding claim 25, Doeringer discloses maintaining a status of transmission of the set of data (col. 7, lines 5-16 and col. 8, lines 1-7) where the gateways maintain a "status" by using the tables to determine whether the transmission has reaches its destination.

22. Regarding claim 26, Doeringer discloses determining the status of transmission to be incomplete (col. 10, line 25-col. 11, line 1) where a transmission destined for multiple targets in different subnetworks lying on different paths will be transmitted to different network elements; and selecting a second representative (gateway on the path to a different intended subnet) to complete transmission of the set of data (col. 10, line 25-col. 11, line 1).

23. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

24. Claims 15, 17, 19, and 20 are rejected under 35 U.S.C. 102(a) as being anticipated by Harvey et al. (USPN 6,189,039), previously cited.

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25. Regarding claim 15, Harvey discloses a system comprising: a server to automatically establish a domain (multicast area) from a first and second subnet, to select a representative (repeater receiver application) for the domain that is in one of the subnets, and to delegate a multicast transmission of a set of data to the representative (col. 3, lines 9-44 and col. 4, line 60-col. 6, lines 17) where “select” is broadly defined as allowing the repeater to join the multicast connection; a first network element (repeater receiver application) connected to the server, the first network element having been selected as the representative to transmit the set of data (data stream) to a set of targets (clients subscribing to re-broadcast stream) in the domain, and to maintain a status of the transmission (col. 6, lines 1-17 and col. 6, lines 24-28); and a second network element (Fig. 1: router) connected to the server and the first network element, the second network element to forward multicast traffic between the first and second subnet (col. 3, lines 9-25).

26. Regarding claim 17 Harvey implicitly discloses that the server to select the representative comprises the server to determine the first network element to have the set of data (col. 6, lines 1-17) where the representative is a node which is capable of receiving a data stream and then retransmitting this data stream, such that the representative must “have the set of data” in order to retransmit the stream.

27. Regarding claim 19, Harvey implicitly discloses that the server maintains a status of the transmission (col. 1, lines 25-27) where “register” implies that the server maintains a status.

28. Regarding claim 20, Harvey implicitly discloses that the first network element comprises a domain cache to indicate an alias domain (re-broadcast multicast domain) corresponding to the domain (multicast domain) (col. 6, lines 24-28).

Claim Rejections - 35 USC § 103

29. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

30. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doeringer et al. (USPN 5,361,256).

31. Regarding claim 11, Doeringer discloses a method comprising: transmitting a discovery message (update PDU) to each of a number of representatives of subnets in a network, the discovery message includes a transmission job identifier (groupid) (col. 7, lines 1-16 and col. 7, lines 23-61); receiving responses to the discovery messages (update PDU) from each of the number of representatives of the subnets wherein the response from each representative indicates whether or not the transmission job identifier is stored locally (col. 7, lines 23-61) where each update PDU will detail which groupids are reachable through a particular gateway; creating a number of alias domains in the network based on the responses to the discovery messages (col. 7, lines 23-61), wherein if a response from a sender indicates the identifier is stored locally then the sender's subnet is assigned to an alias domain indicated in the response (col. 7, lines 23-61), for each alias domain in the network, assigning one of the number of representatives of the subnets whose subnet is part of the alias domain as the domain representative (col. 2, line 63-col. 3, line 7 and col. 7, lines 23-61) where "assigning one of the number of representatives" is interpreted to mean "assigning at least one" since this limitation does not preclude multiple domain representatives and where a "domain representative" is defined as any gateway on a path to a

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subnet in the groupid since these gateways “represent” the domain by determining to which nodes to send a transmission.

Doeringer does not expressly disclose that if the response indicates the identifier is not stored locally, then the sender’s subnet is assigned to an alias domain since in Doeringer a multicast is sent only to those subnetworks on which an intended recipient resides (col. 10, line 25-col. 11, line 1). However, if the transmission is a broadcast, such that all nodes in the network are intended recipients, and if the sender indicates that the sender’s subnet is not assigned to such an alias address, then it would have been obvious to one of ordinary skill in the art to assign the sender’s subnet to an alias domain in order to ensure that the nodes residing on the sender’s subnet will receive the broadcast.

32. Regarding claim 12, Doeringer discloses that assigning one of the number of representatives of the subnets whose subnet is part of the alias domain as the domain representative comprises: ordering a set of network addresses; and selecting one of the set of network addresses, the one of the set of network addresses corresponding to the one of the number of representatives of the subnets (col. 2, line 64-col. 3, line 7 and col. 7, lines 17-19) where the nodes select the “best” path through the multiple gateways, such that the gateways that are part of the transmission of a groupid message are “selected” from an “ordered” set of network addresses (i.e. the other possible gateways for a path).

33. Regarding claim 13, Doeringer discloses that assigning one of the number of representatives of the subnets whose subnet is part of the alias domain as the domain representative comprises: indicating a preference value for each of the number of representatives; and determining the one of the number of subnet representatives to have the preference value

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most desired of the number of representatives (col. 2, line 64-col. 3, line 7 and col. 7, lines 17-19) where only the subnet representatives that are on the shortest path or have the best quality of service are selected as domain representatives.

34. Regarding claim 14, Doeringer discloses that assigning one of the number of representatives of the subnets whose subnet is part of the alias domain as the domain representative includes determining one of the number of representatives of the subnets to have a set of data to be transmitted throughout the network (col. 10, line 25-col. 11, line 1) where only network elements that are on the path of transmission and thus receive the packet, i.e. "have the set of data to be transmitted," are selected for participation in multicast distribution such that the network element initiating the multicast must "have the set of data."

35. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey et al. (USPN 6,189,039), previously cited, as applied to claim 15 above, and further in view of Novaes (USPN 6,735,200), previously cited.

36. Regarding claim 16, Harvey does not expressly disclose that the server selects the representative comprises the server to order a set of network addresses, the set of network addresses corresponding to a set of network elements in the first and second subnet, and selects one of the set of network addresses. Novaes teaches, in a multicast system, that selecting the representative comprises having a node order a set of network addresses (col. 9, lines 6-18 and col. 12, lines 50-60), the set of network addresses corresponding to a set of network elements in the first and second subnet (col. 12, lines 50-60), and selecting one of the set of network addresses (col. 9, lines 6-18 and col. 12, lines 50-60) in order to have a fault tolerant system (col. 1, lines 27-34). Thus, it would have been obvious to one of ordinary skill in the art at the time of

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the invention to have the server select the representative comprises the server to order a set of network addresses, the set of network addresses corresponding to a set of network elements in the first and second subnet, and select one of the set of network addresses in order to have a fault tolerant system.

37. Regarding claim 18, Harvey does not expressly disclose a third network element to resume transmission of the set of data if the first network element fails to complete the transmission of the set of data, the third network element being in the domain and having the set of data locally. Novaes teaches, in a multicast system having a third network element resume transmission of the set of data if the first network element fails to complete the transmission of the set of data, the third network element being in the domain and having the set of data locally (col. 8, lines 12-17 and col. 12, lines 50-64) in order to have a fault tolerant system (col. 1, lines 27-34). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a third network element resume transmission of the set of data if the first network element fails to complete the transmission of the set of data, the third network element being in the domain and having the set of data locally in order to have a fault tolerant system.

38. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey et al. (USPN 6,189,039), previously cited.

39. Regarding claim 27, Harvey discloses a machine-readable medium that provides instructions, which when executed by a machine, cause said machine to perform operations comprising: receiving a first message (data pushed to client) from a server indicating a transmission job (col. 5, lines 22-29) where the tunneler is part of the server (col. 3, lines 33-36); determining if the machine is in a domain for the transmission job (determining if the machine

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can receive multicast transmission) (col. 5, lines 29-49); if the machine is not in the domain for the transmission job (machine cannot receive multicast transmission), then transmitting a second message (request for unicast) to the server indicating the machine's subnet (request contains IP address which will indicate the machine's subnet) (col. 5, lines 50-67).

Harvey does not expressly disclose that if the machine is in the domain for the transmission job, then transmitting the second message to the server indicating the domain. However, Examiner takes official notice that it is well known in the art to send acknowledgements in order to ensure that a message has been properly received. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to transmit a second message (acknowledgement) to the server indicating the domain (multicast address) in order to inform the server that the message has been properly received and acted upon.

40. Regarding claim 28, Harvey discloses providing instructions, which when executed by the machine, cause said machine: to perform operations further comprising: receiving an indication of a source (received IP unicast data stream) of a set of data for the transmission job (col. 6, lines 1-6 and col. 6, lines 14-17); accessing the set of data (col. 6, lines 1-6 and col. 6, lines 14-17); receiving an indication of a set of targets (members of the rebroadcast multicast data stream) for the set of data (col. 6, lines 1-6; col. 6, lines 14-17; and col. 6, lines 24-28); notifying the targets of the transmission job (col. 6, lines 1-6 and col. 6, lines 14-17); transmitting the set of data to the set of targets (col. 6, lines 1-6 and col. 6, lines 14-17); and transmitting an indication of a status of the transmission job to a server (col. 5, lines 54-67) where a receiver application will notify the server if the connection has failed, etc.

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41. Regarding claim 29, Harvey discloses providing instructions, which when executed by the machine, cause said machine to perform operations further comprising: receiving a notification of the transmission job (presence or absence of data stream) (col. 5, lines 40-49); determining if the machine is one of a set of targets for the transmission job (col. 5, lines 40-49) where it is implicit that the machine will determine if the data stream is the correct data stream; listening for a set of data of the transmission job (col. 5, lines 40-49); and notifying a network element when the set of data has been received, the network element transmitting the set of data (col. 5, lines 40-49) where the receiver will signal to the server when the data stream has not been received such that the absence of such a signal notifies the server that the stream has been received.

42. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey et al. (USPN 6,189,039), previously cited, as applied to claim 27 above, and further in view of Karol et al. (USPN 6,122,275), previously cited.

43. Regarding claim 30, Harvey discloses receiving a set of data of the transmission job (col. 5, line 22-col. 6, line 17). Harvey does not expressly disclose providing instructions, which when executed by the machine, cause said machine to perform operations further comprising: indicating to a transmitting network element to modify a rate the set of data is being transferred if the rate is too slow or too fast for the machine; and indicating to the transmitting network element to retransmit a subset of the set of data if the subset was missed. Karol teaches, in a packet communication system, indicating to a transmitting network element to modify a rate the set of data is being transferred if the rate is too slow or too fast (col. 8, line 50-col. 9, line 6); and indicating to the transmitting network element to retransmit a subset of the set of data if the

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subset was missed (col. 8, line 50-col. 9, line 6) where it is implicit that this is done in order to ensure proper delivery of information. It would have been obvious to one of ordinary skill in the art at the time of the invention to indicate to a transmitting network element to modify a rate the set of data is being transferred if the rate is too slow or too fast for the machine; and to indicate to the transmitting network element to retransmit a subset of the set of data if the subset was missed in order to ensure proper delivery of information.

Conclusion

44. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nurenberg et al. (USPN 6,181,697) see entire document which pertains to unicasting a datastream to allow a client to access a multicast network. Roy et al. (USPN 6,496,859) see entire document which pertains to device discovery.

45. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

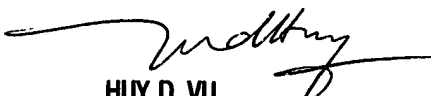
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 Daniel J. Ryman
Examiner
Art Unit 2665


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